

DOCUMENT RESUME

ED 113 332

SP 009 567

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TITLE Teacher Characteristics and Their Relationship to
Cognitive and/or Affective Learning in Elementary
School.
NOTE 14p.
EDRS PRICE MF-\$0.76 HC-\$1.58 Plus Postage
DESCRIPTORS *Affective Behavior; *Cognitive Development;
*Effective Teaching; Elementary Education;
*Elementary School Teachers; *Learning; Self Esteem;
Student Teacher Relationship; Student Teachers;
Teacher Characteristics; Teacher Motivation

ABSTRACT

This study investigated 34 selected teacher characteristics that relate to cognitive and/or affective learning in elementary school. A questionnaire for identifying characteristics of effective teachers was developed and distributed to fifty graduating student teachers. Three questionnaires were excluded because they signified "None" on the questionnaire, indicating that no elementary teacher had significantly motivated them in a positive way. Each item on the questionnaire was given an affective, cognitive, or both cognitive and affective categorization. The Chi Square test for significance at the .05 level was used. Of the 34 items included in the study, 27 were found to be significant. It was found that all 47 students selected both affective and cognitive categories of influence. The study indicated that the motivating teachers were seen in a similar fashion by their individual pupils. The findings suggested a picture of a teacher who is confident about himself/herself and able to relate in a meaningful way to others by helping them to feel positive about themselves. (Author/RC)

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Teacher Characteristics and Their
Relationship to Cognitive and/or Affective
Learning in Elementary School

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ED 113 332

Model development in education is in its infant stage. The development of models in psychology (Freudian and Rogerian) has had heuristic value because it enabled researchers to define the variables which help to develop effective interaction. The field of education could benefit from model development, especially models which have been based upon phenomenological data of effectiveness.

Medley (1973) believed that empirical data is absent and yet vitally needed to clarify professional competencies. Further, he stated that teacher education curriculums have not been empirically shown to relate to teacher effectiveness in any large degree.

Pressures have recently come to bear from state legislatures requiring teacher education programs to have a "performance base." Throughout the country, as educators begin to redesign their programs, there will be an immediate need for research in teacher effectiveness.

Mitzel (1960) indicated that three criteria should be used for assessing and predicting teacher effectiveness: (1) product criteria (pupil change in growth, attitudes and behavior), (2) process criteria (classroom behavior such as interactions of pupils and teacher, rapport with discipline of pupils, individualization of instruction), and (3) presage criteria (teacher characteristics such as knowledge, achievement, social skills, and personal adjustment).

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The present study format collected data on product criteria and presage criteria through the use of the research questionnaire.

Ryans (1960) assessed such teacher qualities as: "friendly, warm, and understanding; responsible, businesslike and systematic, stimulating, imaginative, and enthusiastic," and found that pupils behavior at the elementary level seemed more reactive to the teachers' behavior, than secondary students.

Certainly, Ryans provides another set of guidelines in the affective area of teacher effectiveness.

Hall's (1970) research indicated that certain teaching styles are related to cognitive and affective learning and he found teachers' style is a good predictor of certain kinds of cognitive and affective learning. The present study approached this area from a different point; however, the data can be compared in terms of cognitive and affective learnings.

Rosenshine (1971) reviewed fiftyone studies of the relations between specific teacher behavior and student achievement, and observed that these findings are more significant than studies of the effect of teacher personality and background variables.

Tollefson (1973) found that student perception of the characteristics related to effective teaching were independent of student characteristics. "A warm, understanding teacher who likes students and is able to relate to them was considered effective by these students." Although, the 1643 high school student had a range in grades, different feelings about school, and came from a variety of backgrounds, they all shared common perceptions regarding the effective teacher. Interpersonal considerations outweighed procedural

and methodological considerations.'

The present study attempted to fill the gap suggested by the literature and specifically focussed on behavior correlates of cognitive and/or affective learning.

METHOD

Subjects

The population consisted of all the student teachers who were on campus for their final class (N=50). The student teachers were all graduating seniors or graduate students, who had just completed their practice teaching in elementary schools. Ninety percent of the population were females. Several groups were off campus that day and were not included.

All were eligible for state certification, indicating at least minimal expertise in the field.

Procedure

An instrument for identifying characteristics of effective teachers was developed. The characteristics of the instrument were abstracted from studies by Ryans (1960), Mitzel (1960) and Soars (1964), Tollefson (1973) and Amidon and Flanders (1963), Alexander (1960) and the Motivating Teachers' Questionnaire developed at Hunter College in 1969 by P. Hurewitz.*

The T.E.P. format was the one which was basically used for purposes of this study, with some modifications. All of the items suggested by the researchers were included in the M.T.Q. format. The directions were modified for the purpose of this study, and some items were deleted.

The original instrument was tested and used with several thousand students at Hunter College.

* for further information contact the author.

Fifty questionnaires were distributed. Of these, three were excluded because they signified, "NONE" on the questionnaire, indicating that no elementary teacher had significantly motivated them in a positive way.

The population was sorted according to the questionnaire. Each item was given an affective, cognitive, or both cognitive and affective categorization.

Students were asked to "check each category that was motivated or influenced by the teacher you selected." Some sample statements were: An interest in learning about a particular subject, a desire to help others, and helped the student to feel more self confident.

The null hypotheses that were tested in this study were:

H₀₁ There are no significant differences between the observed frequencies of responses to categorization of adjectives associated with affective learning, and the expected frequencies of responses to categorization of adjectives associated with affective learning.

H₀₂ There are no significant differences between the observed frequencies of responses to categorization of adjectives associated with cognitive learning, and the expected frequencies of responses to categorization of adjectives associated with cognitive learning.

The Chi Square test for significance at the .05 level was the statistical procedure used.

The rationale for using Chi Square, a non-parametric technique, was that the data collected was nominal in nature (Yes, or No). A check in either cognitive or affective column signified

a, "Yes" response, a blank signified a, "No" response.

The variables which were considered for this study were:
Independent = 34 individual characteristics
Dependent = statistically significant cognitive and/or affective learning outcomes.

RESULTS

It was found that all forty seven students selected both affective and cognitive categories of influence.

There are significant differences between the observed frequencies of responses to categorization of adjectives associated with affective learning and those associated with cognitive learning, and the expected frequencies of responses to these categorizations. Of a total of 34 items, only seven of the adjectives were not significant at the .05 level of confidence for either cognitive or affective areas.

Those items were:

Imaginative
Critical Thinker
Self-Controlled

Critical
Persistent

Lively
Easy-going

The other 27 items were significant at a level of .05 or better, Nineteen of the adjectives were significant at the .001 level (See Table 4).

Of interest, was the high proportion (Table 1) of the total percentage of significant affective items, as compared with the total percentage of significant cognitive items. There was approximately a 2:1 ratio.

Eight adjectives were seen as significant in both the affective and cognitive domain. (See Table 4).

Two adjectives, "Authoritarian and Systematic" received a negative significance at the .01 level in the affective domain. The cognitive items showed no significant negative differences. These items were not related, but rather, were negative descriptive characteristics of affective teachers. The degree of negativism is related because it was significantly below the expected frequency. The more one describes "affective" the less the term "authoritarian and systematic" will appear.

TABLE I
TOTAL PERCENTAGES OF SIGNIFICANT ITEMS
RESPONDED TO AT THE .05 LEVEL OF SIGNIFICANCE OR BETTER

Category of adjective	
Cognitive	35%
Affective	62%

Table 1 shows that the students responded almost two times as much to the adjectives in affective terms as compared to cognitive terms.

TABLE 2
FREQUENCY DISTRIBUTION OF SIGNIFICANT ITEMS

<u>No. of items</u>	<u>Level of Sig.</u>	<u>Cognitive</u>	<u>Level of Sig.</u>
24	.001	9	.001
4	.01	1	.01
5	.05	2	.05
<u>33</u>			
2	-.01	<u>12</u>	
<u>35*</u>			
<u>Affective</u>	<u>Level of Sig.</u>		
15	.001		
3	.01		
3	.05		
<u>21</u>			
2	-.01		
<u>23</u>			

* for 68 possible responses (34 Yes, 34 No)

TABLE 3
RANK ORDER OF COGNITIVE ADJECTIVES

Rank	Item	% of response	Level of Sig.
1	#2 Stimulating	85.11	.001
2	32 Knowledge in subject area	82.98	.001
2	27 Encouraging	82.98	.001
3	6 Responsible	80.85	.001
3	28 Helpful	80.85	.001
4	8 Systematic	74.47	.001
4	24 Fair	74.47	.001
4	25 Praised students	74.47	.001
4	29 Confident	74.47	.001
5	18 Patient	70.21	.01
6	7 Businesslike	65.96	.05
6	15 Respectful of students	65.96	.05

RANK ORDER OF AFFECTIVE ADJECTIVES

1	15 Respectful of students	89.36	.001
1	16 Cheerful	89.36	.001
1	18 Patient	89.36	.001
1	19 Considerate	89.36	.001
2	1 Made students feel important	87.23	.001
2	4 Friendly	87.23	.001
3	14 Sense of humor	85.11	.001
3	17 Generous	85.11	.001
3	24 Fair	85.11	.001
4	5 Understanding	80.85	.001
4	20 Sincere	80.85	.001
4	23 Sociable	80.85	.001
5	27 Encouraging	78.72	.001
5	22 Sympathetic	78.72	.001
6	29 Confident	74.47	.001
7	25 Praised Students	72.34	.01
7	30 Calm	72.34	.01
8	28 Helpful	70.21	.01
9	9 Revealed oneself	65.96	.05
9	10 Open-minded	65.96	.05
9	11 Encouraged individuality	65.96	.05
10	8 Systematic	29.79	.01
11	33 Authoritarian	29.66	.01 Negative Sig.

TABLE 4
LEVELS OF SIGNIFICANCE AND PERCENTAGE OF ALL ITEMS

Item	No. of Times Chosen		%	
	Affective	Cognitive	Affective	Cognitive
1. Made students feel important	42	23	87.23****	48.94
2. Stimulating	29	40	61.70	85.11****
3. Imaginative	31	30	65.96	63.86
4. Friendly	41	23	87.23****	48.94
5. Understanding	38	29	80.85****	61.70
6. Responsible	28	38	59.57	80.85****
7. Businesslike	9	31	19.15	65.96**
8. Systematic	14	35	29.79*	74.47****
9. Revealed oneself	31	20	65.96**	42.55
10. Open-minded	31	26	65.96**	55.32
11. Encouraged individuality	31	28	65.96**	59.57
12. Critical thinker	17	26	36.17	57.45
13. Self-controlled	26	36	55.32	55.32
14. Sense of humor	40	28	85.11****	59.57
15. Respectful of students	42	31	89.36****	65.96**
16. Cheerful	42	25	89.36****	53.19
17. Generous	40	26	85.11****	55.32
18. Patient	42	33	89.36****	70.21***
19. Considerate	42	26	89.36****	55.32
20. Sincere	38	27	80.85****	57.45
21. Critical	17	27	36.17	57.45
22. Sympathetic	37	25	78.72****	53.19
23. Sociable	38	19	80.85****	40.43
24. Fair	40	35	85.11****	74.47****
25. Praised students	34	35	72.34***	74.47****
26. Persistent	17	27	36.17	57.45
27. Encouraging	37	39	78.72****	82.98****
28. Helpful	33	38	70.21***	80.85****
29. Confident	35	35	74.47****	74.47****
30. Calm	34	26	72.34***	55.32
31. Lively	30	29	63.83	61.70
32. Knowledge of subject area	15	39	31.91	82.98****
33. Authoritarian	13	20	27.66*	42.55
34. Easy going	30	20	63.83	42.55

**** .001 level of significance
 *** .01 level of significance
 ** .05 level of significance
 * -.01 level of significance

DISCUSSION

The preponderance of items at the .001 level, seemed to indicate that this population saw their own individual motivating teachers in a similar fashion, and the characteristics that seemed to motivate them were significantly similar for each other. Tollefson (1973) noted similar findings in his study of high school students, and found they all shared common perceptions regarding the effective teacher. The most important finding was that those students defined effective teaching in terms of, "how a teacher related to students, how he feels about students and about being a teacher..."

In the current study, there were eight items which seemed to influence the sample group in both cognitive and affective areas. They were:

Respectful of students	#15	Praised students	#25	Confident	#29
Patient	#17	Encouraging	#27		
Fair	#24	Helpful	#28		

Perhaps for this group, we can picture a teacher who was confident about himself (#29) and therefore, able to relate in a meaningful way to others by being respectful, patient, fair, praising, encouraging, and helpful. Only item #29, (confident) dealt with the internal quality of the teacher. The other items all dealt with things he could do for others. They were all ways of making people feel good about themselves. All seem to be related to item #1, "made students feel important", which was rated by 87.23% of the population and was significant at the .001 level of confidence.

If the sample was representative of other student groups, as would seem to be indicated, then these implications can become part of a study to be used in developing a model for teacher education programs.

Departments of Education are under growing pressure to develop "competency based teaching". However, this study, and others indicate that there is an awareness of personality as an influence in learning, and for this particular group, during that early period of their lives, the affective domain seemed to be more important than the cognitive domain.

Are we, within our institution of learning, trying to develop individuals who, "feel good about themselves"? Is this inner strength something we can develop in our schools? Should personality development be included as a skill, which potential teachers need in order to help children to grow?

Implied in the study is that teachers can become more effective by becoming aware of themselves and the importance of their interaction with their students.

If, as Medley (1973) observed, that teacher education curriculums have not been empirically shown to relate to teacher effectiveness in any large degree, then changes are called for in the college curriculums. The University of Massachusetts and the University of Georgia are presently including personality components in their teacher education programs. They are beginning to handle the multi-dimentional effects of teacher effectiveness on pupil achievement. The study has implications for Education Departments as they formulate a program of study for students that is based upon models of effectiveness as defined by

empirical data rather than beliefs and conjecture.

The present study alerts us to many possibilities and many unanswered questions. It is "food for thought."

LIMITATIONS

There is a need to explore how other groups view the effective teacher. Such groups would include elementary school pupils, parents, teacher and administrators.

Effective teacher characteristics may differ in importance at different levels of instruction, and from one subject to another.

The study only attempted to identify characteristics, it did not provide a basis for explaining relationships, though it suggested some important ones.

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